

ABSTRACT

A hydrogen-fueled motor vehicle including at least one hydrogen-fueled locomotion subsystem and at least one refuelable hydrogen generator operative to supply hydrogen fuel to the hydrogen-fueled locomotion subsystem on demand. The refuelable hydrogen generator includes at least one electrochemical reactor operative to generate the hydrogen fuel from water on demand and a refueling subsystem providing at least one of water, electrolyte, hydrogen, a metal containing material and electrical power to the electrochemical reactor. A refueling method is also provided.